

Responses to Comments on the Study to Identify Potential Long-Term Threats and Financial Assurance Mechanisms for Long-Term Postclosure Maintenance and Corrective Action at Solid Waste Landfills
California Integrated Waste Management Board
March 2008

Following is a summary of comments and responses to comments received from the AB 2296 Consulting Group regarding the: *Study to Identify Potential Long-Term Threats and Financial Assurance Mechanisms for Long-Term Postclosure Maintenance and Corrective Action at Solid Waste Landfills (Study)*.

Process

Comment:

Some commenters stated that the process did not allow for adequate review and discussion during the development of the *Study*.

Response:

The short timelines for review of the various work products was dictated by the Legislative timeline for completion and acceptance of the *Study*. All participants in the Advisory Group were informed of this limitation prior to initiation of the project. Please note that prior to implementation of any recommendation contained in the *Study*, additional time for further discussion and stakeholder input would be scheduled. To facilitate the eventual review of the completed *Study*, a number of "White Papers" were developed by the consultant as the basis for the *Study*. The Advisory Group reviewed the White Papers and their comments were forwarded to the consultant. In addition all draft deliverables and comments submitted were posted on the CIWMB web pages dedicated to the *Study*. Also, a workshop was conducted by CIWMB staff and the contractor for the Advisory Group prior to finalization of the *Study*.

Submitted Comments/Documents

Comment:

A couple of commenters stated that they could not see how their comments were reflected in the *Study*.

Response:

All comments and/or documents were forwarded to the contractor for their review and use. Since the *Study* represents the contractor's judgment and work, CIWMB staff is unable to determine the extent to which any particular comment and/or document was used by the contractor in developing the *Study*. Please note that all submitted information will be considered by CIWMB staff in developing any regulations or proposed legislation.

Comment:

Some commenters submitted documents (e.g., ITRC, EREF, Day of Reckoning) concerning the extent of the postclosure maintenance period.

Response:

The purpose of the *Study* was not to determine the length of the postclosure maintenance period. CIWMB staff will review the submitted documents and their applicability for determining the end of the postclosure maintenance period. Please note that California standards are different than Federal standards. Under California requirements, the burden of proof is on the operator to demonstrate that the waste no longer proposes a threat to the public health and safety and the environment. Furthermore, under California standards the threat is based on the inherent nature of the waste.

Need for Study/Problem Definition

Comment:

A couple of commenters stated that the *Study* did not identify and/or define problems with the existing financial assurance system that would necessitate the recommendations included in the *Study*.

Response:

The purpose of the *Study* was not to define the problems but to present various options that CIWMB could consider. The deficiencies in the current financial assurances system have been thoroughly discussed over the last four to five years in several workshops and other venues. The problem statement was incorporated into the Staff Report prepared as the staff analysis of the *Study*.

Corrective Action Definition

Comment:

A couple of commenters stated that the definition of corrective action used in the *Study* was inconsistent with the definition of corrective action in RCRA Subtitle D (RCRA).

Response:

The definition of corrective action (CA) used in the *Study* was a working definition and was not intended to be consistent with the definition of CA contained in RCRA. CA as defined in RCRA only relates to releases to ground or surface water (i.e., impact to water quality). However, CIWMB staff considers Landfill CA to encompass more than just impacts to water quality, hence the more comprehensive definition in the *Study*. When comparing CA to postclosure maintenance, CIWMB staff considers the purpose of postclosure maintenance is to *maintain* the integrity of the closed landfill, while the purpose of corrective action is to *restore* the integrity of the active or closed landfill by implementing measures to remediate environmental damage and protect public health and safety. Please note that while postclosure maintenance is only necessary at closed landfills or for closed areas of active landfills, corrective action may be necessary at both active and closed landfills. The definition of CA will be further refined during the April Corrective Action Workshop.

Comment:

One commenter suggested that the costs for major maintenance (e.g., cap and LCRS replacement) should be included as corrective action or postclosure maintenance.

Response:

This topic will be discussed at the March Postclosure Maintenance Workshop and additional information is being developed in a landfill compliance review that is currently underway for the April Corrective Action Workshop.

Financial Assurance Mechanism Evaluations

Comment:

There were several comments concerning the relative merits of the various mechanisms.

Response:

The FA mechanism evaluations included in the *Study* represent the contractor's (author's) opinion of the strengths and weaknesses of each of the mechanisms. CIWMB staff does not necessarily agree with each of the contractor's rankings of the mechanisms. In making any recommendations for future regulations and/or legislation, staff will consider the evaluations included in the *Study* but will rely on its best professional judgment after considering all relevant information.

Comment:

There were several comments that disagreed with the contractor's poor rating for the Pledge of Revenue.

Response:

CIWMB staff strongly disagrees with the contractor's conclusions regarding the viability of the Pledge of Revenue. CIWMB staff considers the Pledge of Revenue to be an effective and secure mechanism for providing financial assurances for postclosure maintenance. CIWMB staff will be considering means of standardizing the Pledge of Revenue to address one of the findings noted in the *Study*. This topic will be addressed at the May Phase II Regulation Workshop. Furthermore, this topic may also be discussed at the March Postclosure Maintenance and the April Corrective Action Workshops.

Comment:

There was a comment concerning the viability of the financial means test and other non-third party mechanisms for closure and postclosure maintenance.

Response:

Pursuant to legislation (Public Resources Code section 43601[b]), CIWMB must accept all mechanisms that are allowed under Federal regulations. However, use of these mechanisms can be reasonably conditioned. For example, the financial means test is only allowed for postclosure maintenance and not for closure. This topic will be examined further at the May Phase II Regulation Workshop. Moreover, this topic may also be discussed at the March Postclosure Maintenance and the April Corrective Action Workshops.

Pooled Fund Model

Comment:

Some commenters expressed concern about both the pooled fund scenario contained in the *Study* and the assumptions used for the pooled-fund model.

Response:

For the *Study* the contractor was to develop a pooled-fund model that could be used by CIWMB under various scenarios. The scenario used to validate the model in the *Study* was only one of several potential scenarios. Furthermore, many of the various assumptions/factors used in the model can be modified including, but not limited to, default probabilities, number and cost of corrective actions, and general landfill data. CIWMB staff intends to evaluate several various scenarios under various assumptions and conduct workshops prior to making any final recommendation to the Board regarding the necessity and use of a pooled fund. Various scenarios will be presented at the February Pooled-Fund Workshop. Scenarios to be considered would include: public versus private and all post-30 PCM and/or CA costs versus defaults only. Input values will also be adjusted for various sample scenarios for demonstration purposes and discussions.

Some of the input parameters that will be evaluated include adjusting default rates and the frequency and magnitude of corrective actions. A compliance review is currently underway is looking at the nature, circumstances, magnitude, duration, frequency, and costs of corrective actions at the 282 landfills subject to financial assurance requirements. The results of this analysis will be presented at the April Corrective Action workshop. Moreover, we will be evaluating the default rates over the next several months and look for the best available information on default rates, enhanced capabilities for the working model, and consideration of tiered assurance scenarios.

Furthermore, although currently the pooled fund scenarios have been run with a 90% probability of maintaining the solvency of the fund, we can run selected scenarios with higher confidence levels for comparison.

Comment:

Some commenters expressed specific concerns about the frequency and level of corrective actions used for the sample scenario presented in the *Study*.

Response:

CIWMB staff is currently reviewing Board, LEA, and Regional Water Board records regarding corrective actions at landfills to help determine the appropriateness of the modeling inputs. The results of this work will be discussed at the April Corrective Action Workshop.

Comment:

One commenter objected to the assumption that the costs for postclosure maintenance remained constant. They suggested that the costs would decrease over the postclosure maintenance period and would be minimal after the initial 30-year period.

Response:

The pooled-fund model took a conservative approach in presenting the potential liability/costs that may be incurred as the result of a default. Contrary to the comment, CIWMB staff has not observed the annual cost of postclosure maintenance to be decreasing for sites that have already commenced postclosure maintenance. Staff has not

received revised postclosure maintenance plans reflecting decreased costs associated with maintaining the landfills. In addition the model did not take into account the increase in costs due to inflation or other cost factors. This issue will be discussed at the March Postclosure Maintenance Workshop. Also, the input parameter for postclosure maintenance costs can be adjusted in the model. This scenario may be addressed at the February Pooled-Fund Workshop. Typically, payment request have been for one annual increment (1/30) of the postclosure maintenance amount and not for the actual costs incurred.

Comment:

Some commenters asked whether the pooled fund would be in addition to or in lieu of other financial assurances.

Response:

As part of the May Phase II Workshop, the potential use of the pooled fund in relationship to other financial assurance demonstrations currently allowed for or provided by operators under current California regulations will be discussed. Depending upon the mix of financial assurance options, the pooled fund may be independent or used in conjunction with other current or new assurances. CIWMB staff will discuss this issue at the May Phase II Workshop and present options at the June Permitting and Compliance Committee meeting.

Insurance Product

Comment:

There were comments both for and against an insurance product and the parameters for that product.

Response:

Based on the information in the *Study*, CIWMB staff does not recommend pursuing an insurance product at this time. The insurance industry is not interested in selling a product for this purpose, and the Board directed staff in December 2007 not to pursue an insurance product further at this time..

Risk Screening Methodology

Comment:

Some commenters stated that the Risk Screening Methodology was inadequate to determine individual landfill risk.

Response:

The Risk Screening Methodology (RSM) was intended to be a “high-level” screening tool to compare potential threats of landfills. The RSM was never intended to be a site-specific detailed risk assessment. The purpose was to develop a method to compare landfills to each other, i.e., a relative ranking, rather than an absolute ranking for each site. Any particular score for a landfill does not represent any particular level of threat but only its relative threat when compared to other landfills. Therefore, a high score does not mean that a particular landfill is an imminent threat. It is only that when compared to a landfill with a lower score, the higher-score landfill would appear to have a greater “potential” threat for an impact than the lower scoring landfill. Other potential risk screening methodologies will be examined as part of the April Corrective Action Workshop.

Comment:

Several commenters suggested additional and/or alternative factors for the RSM.

Response:

Although many factors were considered for the RSM, the number of factors was limited so that the RSM would not be overly cumbersome or complicated. The factors chosen for the RSM were those for which the necessary data would be readily available and quantifiable. These factors were also those that when combined would give a reasonable representation of the relative threats of landfills and take into consideration siting, design, and receptor factors. The siting and design factors represent the relative threat of damage or impact that may occur while the receptor factors represent what population may be impacted. The combination of these factors represents the relative threat of a landfill. Alternative factors and values will be discussed at the April Corrective Action Workshop.

Comment:

Some commenters suggested alternative scoring breakpoints.

Response:

Since the purpose of the RSM was to provide a relative -- not absolute -- threat, the current state minimum standards (i.e., RCRA Subtitle D and 27 CCR) were used as the middle value for each factor as applicable. In this way, those sites which were designed to higher standards would receive "credit" while those designed to lesser standards (e.g., older, unlined sites) would have lower scores.

Comment:

Some commenters asked what the proposed use of the RSM would be.

Response:

Although various uses of the RSM have been contemplated, at this time there is no specific use of the RSM that has been determined. The RSM can be a useful tool to make a high-level evaluation of a landfills relative potential to impact public health and safety and the environment. Other possible uses include: (1) estimating corrective actions in the pooled fund; (2) setting fee structure and amount for the pooled fund to encourage progress of environmental controls; and (3) potential for disbursement priority if a pooled fund is developed with limited resources (incapable of handling all expected needs). Depending upon the intended use of the RSM, CIWMB would consider alternative factors and/or scoring criteria for the RSM.